

REMARKS/ARGUMENTS

Claim 1-3, 5-8, 12-28 are pending in this application prior to amendment. Claim 14 is canceled. Claims 16-28 were previously withdrawn as the result of a restriction requirement.

Claim Rejections - 35 U.S.C. § 102

Claims 1, 5-8, and 12-15 are rejected under 35 U.S.C. § 102(b) as being anticipated by Atsumi (U.S. Patent No. 5,736,781).

Atsumi discloses an IC module 1 that has surface contact terminals 101-106 on its upper surface and side surface contact terminals 111-116 extending from the surface contact terminals 101-106. See Atsumi col. 3, lines 19-29, and FIG. 1. The surface contact terminals extend only partially across the upper surface of the module, and thus there is a gap between them. See, for example, Atsumi FIG. 2, contact terminals 102 and 105, which are spaced apart from each other. The side contact terminals do not extend across the bottom of the module. See, for example, Atsumi FIG. 2, contact terminals 112 and 115, which stop where they reach the bottom of the module. Atsumi also discloses retaining means including convex portion 14 that is a cylindrical prong to hold the ID module in a recessed area. See Atsumi col. 3, lines 7-11, and FIG. 1.

Independent claims 1, 8, and 15 recite that the electrical contacts of the interface module extend *continuously at least one half of the periphery around the body of the interface module*. Claim 5 and 12 recite that the electrical contacts of the interface module extend *completely* around the periphery of the body of the interface module.

With respect to independent claims 1, 8, and 15, which recite electrical contacts extending continuously over at least one half around the periphery of the interface module body, Atsumi does not teach such a limitation because there is a gap in the Atsumi upper surface contacts (101 and 104, 102 and 105, and 103 and 106), and there are no contacts on the Atsumi bottom surface (see Atsumi FIGS. 1 and 2). Further, Atsumi teaches away from having a single contact at a point along the longitudinal axis; Atsumi discloses pairs of *separate contacts* with a gap therebetween at each location along the longitudinal axis.

In the Examiner's Response to Arguments of the present Office Action, the Examiner stated that "the Office indicates that the contacts 111-116 of Atsumi can be construed at extending over one half of the periphery of the module body (see Figs 4-13)." Applicant respectfully submits that Applicant's claims 1, 8, and 15 recite that the contacts extend *continuously* for over at least one half of the periphery of the interface module body, and that Atsumi cannot do this. FIGS. 1 and 2 of Atsumi clearly show three pairs of spaced electrical contact terminals (Pair 1: contact terminals 101, 111 spaced from contact terminals 104, 114; Pair 2: contact terminals 102, 112 spaced from contact terminals 105, 115; Pair 3: contact terminals 103, 113 spaced from contact terminals 106, 116). Each pair has contacts that must be spaced from each other for Atsumi to function with its intended use. Annotated FIGS. 1 and 2 from Atsumi are as follows:

FIG. 1

FIG. 2

A may be seen from the above figures, the electrical contacts of Atsumi do not extend across the bottom of the IC module. The electrical contacts in each pair are also spaced from each other with the spaced area centered on the top of the IC module; it is not possible for a module as disclosed in Atsumi to have contacts that extend continuously over at least one half of the periphery around the module.

In summary, Applicant's claims 1, 8, and 15 recite continuity in single contacts along the interface module longitudinal axis assists resulting in being able to insert Applicant's invention in a card reader without regard to the rotational orientation of the interface module about the longitudinal axis. Contrary to the recitals of Applicant's independent claims, Atsumi has discontinuous contacts that do not permit such use and do not meet the recitals for continuous extension around the periphery of a body.

In addition, it is respectfully submitted that Atsumi does not disclose a body meeting the recital of claim 8: "wherein the body has a cross-sectional shape that is substantially rectangular and other than substantially planar, and wherein a substantially planar shape is one having a height to width ratio of less than approximately 0.5." The Examiner cites Atsumi column 7, lines 5-10 as pertinent, which read as follows:

An IC memory card 140 has various dimensions. Typical dimensions are 86mmx54mmx3.3mm in accordance with a standard of the Japan Electronic Industry Development Association (JEIDA) if the card is mainly intended to be used as, e.g., an auxiliary memory of a personal computer.

Presumably, therefore, the width of the Atsumi IC memory card is 54 mm and the height is 3.3 mm, as corresponds with the general relationship shown in Atsumi FIG. 1. The ratio of height to width, therefore, is 3.3 mm/54 mm, or 0.06. This is well within the definition of a planar body in claim 8, of a ratio of less than 0.5. Since the Examiner cited dimensions than describe a planar IC memory card, and claim 8 excludes planar bodies, Atsumi does not disclose a nonplanar body as recited in claim 8, and cannot anticipate claim 8.

With respect to dependent claims 5 and 12, which recite electrical contacts extending completely over the entirety of the periphery of the interface module body, as is even more readily clear by inspection of the Atsumi FIGS. 1 and 2, Atsumi does not teach such a limitation

because of the lack of contacts on much of the periphery of the Atsumi module. Applicant respectfully notes that Atsumi does not disclose, teach, or suggest such an element, and that the Applicant lacks any understanding of the Examiner's interpretation of Atsumi with respect to claim 5 and 12, as the Examiner stated "the Office indicates that the contacts 111-116 of Atsumi can be construed as extending over the entirety of the periphery of the interface module body." The Atsumi contacts are clearly shown as discontinuous, and must be so in order to function as intended. As discussed above with respect to claims 1, 8, and 15, having complete continuity in the contacts allows insertion of Applicant's invention in a card reader with total disregard for the orientation of the interface module about the longitudinal axis. The recital of continuity in the contacts makes it possible for Applicant's invention to maintain continuous contact between the interface module contacts and the contacts of the interface module reader regardless of the orientation of the interface module with respect to the longitudinal axis, i.e., the interface module can be rotated about the longitudinal axis and maintain continuous connectivity.

Dependent claims 6 and 13 recite a head extending outward from the longitudinal axis a greater distance than the body. The Examiner asserts that Atsumi retaining means element 14 anticipates this recitation. It is respectfully submitted, however, that the retaining means element of 14 is much narrower than the body of the Atsumi module, does not extend a distance from the longitudinal axis of the body that is greater than the body, and therefore is significantly structurally different from Applicant's recited head.

Accordingly, an interface module, with the advantages described above, is neither taught nor suggested by Atsumi. In order for a reference to anticipate a claimed invention, the reference must teach each and every element in the precise arrangement set forth in the claim. If the reference fails to teach even one of the claimed features, the reference does not and cannot

anticipate the claimed invention. Based upon at least the structural deficiencies of the disclosure in Atsumi identified in the preceding remarks, Applicant respectfully specifically requests that the rejections of claims 1, 5, 8, 12, 13, and 15 be withdrawn. A teaching or suggestion of the recited degree of peripheral continuous electrical contacts is also required to establish a *prima facie* case of obviousness; there is none in Atsumi, and therefore Applicant's invention is not obvious in view of Atsumi. *See* MPEP 2143.03.

Claim Rejections - 35 U.S.C. § 103

Claims 2 and 3 are rejected under 35 U.S.C. § 103(a) as being anticipated by Atsumi in view of Fehrman et al., U.S. Patent 6,193,163 ("Fehrman").

Fehrman discloses a smart card with replaceable chip 14 that has a planar cylindrical body with electrical contacts or leads 18 on one face of the end of the body. *See* Fehrman col. 6, line 65 to col. 7, line 4, and FIG. 1. Among other things, Fehrman does not render Applicant's claims 2 and 3 obvious for two reasons.

First, Fehrman is not applicable to the present invention in that its disclosure relates to the chip 14 having an electrical connection to a card 10 including a card body 12, not the electrical connection between a card and a card reader.

Second, there is an important structural difference in Fehrman. Since the Fehrman contacts are on the surface of the end of the body, they do not extend around the periphery of the body at all. Such a structure cannot be fairly combined with a structure that has contacts along a longitudinal axis, and this is impermissible hindsight to pick and choose certain features (a general shape) while ignoring the disclosure of Fehrman as a whole. Accordingly, claims 2 and 3, which recite substantially circular and substantially elliptical cross-sectional shapes of the

body, respectively, are nonobvious over Fehrman in view of Atsumi.

With respect to all dependent claims, dependent claims 2, 3, and 5-7 depend either directly or indirectly from allowable claim 1. Because of those dependencies, these claims contain all of the features of independent claim 1. Dependent claims 12-13 depend either directly or indirectly from allowable claim 8. Because of those dependencies, these claims contain all of the features of independent claim 8. Therefore, claims 5-7 and 12-14 are submitted to be patentably distinguishable over Atsumi. Claims 2 and 3 are for the same reason submitted to be distinguishable over Atsumi in view of Fehrman. Furthermore, all of the dependent claims recite unique combinations of elements not disclosed or suggested by Atsumi or Atsumi and Fehrman.

For the foregoing reasons, Applicants respectfully submit that the interface module claimed in the present application is neither anticipated nor fairly taught or suggested by any of the references cited by the Examiner, either alone or in any reasonable combination suggested by the prior art. Reconsideration and withdrawal of the rejections, and allowance of claims 1-3, 5-8, 12-13, and 15, at an early date are respectfully requested.

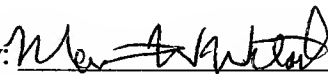
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If the Examiner has any questions about the present Remarks, a telephone interview is requested.

Respectfully submitted,

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